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Abstract

Resilience thinking has been roundly critiqued for not accounting for the political – and inherently power-laden – structures that shape decision-making. In light of the range of critiques as well as the increasing global momentum around resilience thinking, this paper develops the concept of 'Negotiated Resilience.' The concept highlights processes of negotiation to situate, ground, and operationalize 'resilience.' The concept puts particular accent on the procedural orientation of resilience – it is not something that 'exists' and that we can uniformly define, rather it is a process that requires engagement with diverse actors and interests, both in specific places and across scales. Negotiation also inevitably entails contestation and an ongoing consideration of diverse options and trade-offs. We suggest that when considering the inherent complexities of resilience, we would do better to explicitly theorize, analyze, and speak to these negotiations.

Key words: resilience, justice, politics, risk, negotiation, trade-offs

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Introduction

Scholars and policymakers alike are increasingly gravitating towards the idea of 'resilience.' The goal is to strengthen the ability of socio-ecological systems to address emerging global environmental risks, cope with multiple impacts, and adapt to changing climatic, socioeconomic, and political conditions. Though originating from theories of socio-ecological systems (largely from ecological theory, such as Walker and Salt 2006, Folke 2006), the concept is increasingly used to assess actors, networks, and pathways of institutional change in socio-political systems (see Smith and Stirling 2010, Bahadur and Tanner 2014, Sjöstedt 2015). Recently, different governments, multilateral agencies, and NGOs have further applied resilience thinking in the context of governance reform or as mandates to rebuild, securitize, and upgrade infrastructures and services (Eraydin & Taşan-Kok, 2013). Notable examples of this trend include global directives such as the recent Sustainable Development Goals (2015) as well as local interventions such as the Rockefeller Foundation's 100 Resilient Cities[1] program and UNISDR's Making Cities Resilient Campaign.[2]

Current research on socio-ecological systems defines resilience as the ability of systems to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks (Folke, 2006). Yet, in complex systems, resilience does not necessarily entail remaining in place, but also requires adaptability or the ability to transition and transform into a different state (Geels & Schot, 2007; Pelling, 2010; Walker & Salt, 2006). While definitions and focus vary, for instance, with some relying heavily on concepts of stable states and others on transitional pathways that lead to or incentivize desirable change, resilience as a concept attracts considerable attention. One of the appeals is likely the systemic view offered by the concept, as well as the explicit interest in theorizing change, transition, or what allows socio-political entities or ecosystems to respond differently to dynamic conditions and shocks. The application to climate change is a notable focus of the wide ranging scholarly and policy interest in the term over the past several decades (Adger et al., 2011; Pelling, 2010). The rationale behind this is that climate change resilience – as an overarching concept – allows for a structured approach to multi-sectoral and institutional linkages, as well as a clear pathway to managing associated socio-environmental changes and governing risk (Bartlett & Satterthwaite, 2016; Béné, Newsham, Davies, Ulrichs, & Godfrey-Wood, 2014).

Despite the proliferation of resilience thinking in both theory and practice, there has been a simultaneous current of scholarship critiquing the concept, its application, or its implications for power and capital within contemporary socio-political conditions (see for example Meerow and Newell 2016, Gillard 2016, Fisichelli et al. 2016). These critiques note that resilience is often defined as maintaining the status quo, rather than as progressive, transformative change in both the socio-ecological and political economic spheres. Resilience

[1] The Rockefeller Foundation's 100 Resilient Cities Program (www.100resilientcities.org)
[2] The UNISDR's Making Cities Resilient campaign involving more than 3000 cities at present in resilience building for extreme events (https://www.unisdr.org/we/campaign/cities)

thinking often overlooks issues of differentiated power attributed to political ideology, finance, class, race, or knowledge — issues which are arguably exacerbated by global neoliberal restructuring of the social, economic, and political spheres (Gillard, 2016; Joseph, 2013), resulting in growing income and wealth gaps and further concentration of economic and political power (Piketty, 2014). As a result, some have suggested that resilience tends to benefit those who are already disproportionately represented in the dominant socio-ecological regime (Bahadur & Tanner, 2014; Béné, Wood, Newsham, & Davies, 2012; Fainstein, 2015) and, as such, is fundamentally hostile to socio-ecological equity or sustainability imperatives.

This paper responds to the range of critiques of resilience by offering the concept of 'negotiated resilience' precisely to highlight the politics, complexities, and procedural dimensions of resilience. We suggest that resilience thinking must be reframed as a process of negotiation, rather than as a definitive goal or outcome. Doing so promises to better understand, situate or ground, and operationalize resilience in diverse social, economic, political, and ecological contexts. Negotiation puts particular accent on the process orientation of resilience – it is not something that 'exists' as a fixed outcome or that can be uniformly defined, instead it requires iterative engagement with diverse actors, interests, and across time and governance scales (see for example Barnett and Low 2004, Forester 1999, Innes and Booher 2010). This engagement will necessarily be uneven, political, and contested, and will point to complex trade-offs rather than win-win-win scenarios as often uncritically implied by the term (Renn & Schweizer, 2009). As a recent introduction to a special issue on resilience notes, there is no certainty with resilience, as it is as much about the quest as it is about any specific goals—a process that can be understood as organized improvisation — a dynamic problem-solving process (Beilin and Wilkinson, 2015). By foregrounding the procedures and processes of resilience, we can better attend to the politics and stakes of negotiation — i.e., whose interests are advanced in what way and with what possible outcomes, as well as how ideals of consensus or policy agendas are actively sought, managed, and at times 'produced.' Doing so helps to highlight and theorize the multiple contested pathways of resilience across space, place, time, and scale. Rather than seeing resilience as a goal or consensus outcome, it is better understood as an emergent process through which ideals, policies, and agendas are sought, pursued, and at times forced—all possible avenues captured under the broad term of 'negotiation.'

The remainder of the paper is organized into four sections. We begin by outlining the critiques of resilience thinking, highlighting theories of power, equity, justice, and insights from political ecology that help to lay bare the concerns and limitations of the concept. Next, we delve further into the idea of 'negotiated resilience' and illustrate what it offers as an approach and concept that helps to account for differential needs, practices, and priorities. We then turn to two case examples to show how a focus on negotiated resilience helps to better understand these interventions and pathways. By attending to the processes of negotiation as a key element of the trajectories and politics of resilience in each example, we are able to show what an analytic reorientation in line with this concept can afford. In particular, we suggest that the concept is particularly useful to foreground the power and politics associated with 'resilience', its operationalization, and associated contestation. This is

in an important step in contrast to a range of other resilience approaches that presume that such contestation does not exist, or can simply be 'overcome' with moves towards consensus understanding, or viewing 'resilience' as an apolitical, shared, or common-sense notion.

It is also worth clarifying from the outset that while we are sympathetic to many of the critiques of resilience, we nonetheless suggest that resilience thinking holds value for theorizing and planning for complex socio-ecological change. However, the concept must be reimagined to better account for socioeconomic and ecological trade-offs as intrinsic to the process of negotiating what resilience is, could, or should be. Since resilience thinking cannot avoid difficult choices, the focus on negotiation also serves to underscore that it must be pursued in a discursive, deliberative, and negotiated manner that is tailored to on-the-ground realities – including the role of local culture, norms, values and interests – all of which affect the differentiated exposure and subsequent responses to ongoing socio-environmental changes. In other words, resilience cannot be dis-embedded from these contested and multiple processes – it cannot be thought of as a 'thing' or 'outcome,' but rather always arises from the situated practices, politics, and meanings of negotiation in specific sites.

Critiques of Resilience Thinking

The concept of resilience has been used in many different ways by policy-makers, practitioners, academics, and civil society (Evans, 2011). Béné et al. (2014, p. 605) suggest that one of the reasons why resilience has become so pervasive may be because of its 'relatively indistinctive and all-embracing sense, reflecting the intuitive and universal meaning of resilience ('the capacity to absorb shocks').' Nonetheless, the meaning of resilience is often adapted depending on who is using it and for what purposes (Welsh, 2014). Different meanings are at times contradictory, with some supporting equilibrium and others seeing it as a radical shift to a new state (Fainstein, 2015). For example, Shaw and Maythorne (2013) argue that resilience should be seen in terms of bouncing forward, reacting to crises by changing to a new state that is more sustainable in the current environment. Competing definitions can lead to confusion around the intention and expected outcomes of 'resilience' (Meerow & Newell, 2016). Such ambiguities are just one of a number of emerging critiques.

Other critics note that resilient practices often lack a focus on politics and social theory and, in doing so, they have the effect of masking politically sensitive decisions (Coaffee & Lee, 2016; Welsh, 2014). While some have suggested that this blind spot is understandable given the ecological origins and focus of the concept early on, its increasing application to governance and institutions augments the need to focus more squarely on politics and linked concerns of justice and fairness (Davoudi, 2012). For example, Gillard et al. (2016) note that socio-ecological resilience can be overly managerial and apolitical when applied in policy, while others have suggested that resilience offers a bland language of planning in which every challenge produces a win-win solution (Fainstein, 2015). Yet the reality is that these decisions are seldom based on consensus. There will inevitably be groups or interests that lose out and, not surprisingly, these are often the most vulnerable segments of society. The terminology of resilience can be seen therefore to support passivity, favoring those who

already have advantages and supporting the unjust (or unsustainable) status quo (Fainstein, 2015; Meerow & Newell, 2016; Welsh, 2014). This raises questions as to how resilience interventions approach normative questions of what needs to change, particularly as it often might be operationalized in ways that try to maintain the overall structures or power balances in society (Fainstein, 2015; Pelling, 2010).

This tendency to accept and normalize the status quo has also been discussed as problematic in the development context, where those who want to see poverty alleviation are often dissatisfied with the toolkit of resilience to respond to inequity concerns (Béné et al., 2014). Again, this dissatisfaction is derived from the failure of the concept to invite consideration of the structural causes of vulnerability and the political economy that shapes entitlements (Miller et al., 2010; Ribot, 2014; Tschakert, van Oort, St. Clair, & LaMadrid, 2013). Béné et al. (2014) raise allied concerns, for instance suggesting that individuals might supress their hopes and aspirations as they try to become more 'resilient.' New themes emerging from the development literature are the need for resilience approaches to focus more on normative issues of community-based strategies and livelihood needs (Ayers & Forsyth, 2009; Lyon, 2014; Magis, 2010), as well as on the ability to capture subjective perspectives and the lived reality of individuals (Bahadur & Tanner, 2014; Jones & Tanner, 2017).

Other social equity related critiques have also been raised. Among them, some have noted that the concept of resilience fails to address the distribution of benefits and, in doing so, tends to ignore justice issues (Adger, Brown, & Tompkins, 2005; Chu, Anguelovski, & Roberts, 2017; Ernstson et al., 2010). Distributive justice is often insufficiently addressed with inadequate attention paid to how risk and solutions are defined — a concern raised by Forsyth (2014) in the context of climate change impacts and the distribution of risk. Consider, for instance, the plans to make an urban area less exposed to flood risk or to promote 'resilient' infrastructure in the face of anticipated climate-related variabilities or disturbances. These plans – whether they be demolishing vulnerable informal settlements, building new infrastructure, or relocating populations to more 'resilient' neighborhoods – are likely to have justice implications (Shi et al., 2016). There are also trade-offs across temporal and spatial scales, with resilience at one scale possibly compromising resilience at another scale (Anguelovski et al., 2016; Bahadur & Tanner, 2014). Furthermore, such considerations are never about eliminating risk, but rather are about determining acceptable levels of risk for certain groups or areas, often at the expense of others (Ziervogel et al., 2017). Again, this sort of calculus requires that we ask questions about who determines such acceptable levels or where the risk will be borne on behalf of some ideal of the 'greater good.'

To address some of these justice concerns, Gillard et al. (2016) suggest that as the imperative for widespread social action on sustainability grows, it is vital that accountability and democratic process is not simply assumed, made implicit, or even put on hold, but is instead 'opened up.' In the resilience field, there has been a continuum of approaches around engaging widespread participation, ranging from negligible to no participation from civil society to inclusive processes to collaboratively define resilience (Chu, Anguelovski, & Carmin, 2016; Ziervogel, Cowen, & Ziniades, 2016). The primary goal with many of these

interventions has been to democratize, and make more explicit, questions of who is deciding the pathways and projects for 'resilience,' involving diverse stakeholders, as well as defining what would constitute resilience in ways that are attentive to local context, cultures, and so forth.

In light of these diverse critiques, the next section turns to an elaboration of the concept of negotiated resilience to offer partial responses and needed correctives moving forward. We note that there is no need to jettison the very important priorities associated with resilience, particularly as we recognize that focal themes of resilience have been critical to reorient systems and planning to focus on capacity to respond to and weather socio-environmental shocks now and into the future. In light of climate change and other expected changes, such a reorientation likely will remain an important overarching framework. However, given the often-contradictory definitions and directives of resilience thinking, scholars and policymakers need to be clear about where we are going and why, while also contributing meaningfully to ongoing debates regarding implementation pathways. We suggest that by approaching resilience as a process of negotiation rather than as a predefined goal, there is the potential to be more attentive to context-specific considerations, diverse interests, and equity concerns. In short, negotiated resilience invites more clarity in terms of what we are driving at, for whom, and what we are responding to (including what risks are relevant in a particular locale?) (cf. Meerow and Newell 2016).

Negotiated Resilience

We offer the notion of 'Negotiated Resilience' as a conceptual innovation and provocative step forward. We suggest that the concept fruitfully offers at least a partial response to the range of critical perspectives and concerns summarized in the preceding section. To elaborate on the idea and practice of negotiated resilience, we provide a discussion that considers first, the multiple notions and situated understandings of what might be 'resilient' (depending on priority, scale, context, sector, time, or interest); second, the possibilities for enhanced focus on process; third, important attention to possibilities for inclusivity and participation; and fourth, the necessity and inevitability of contestation and politics.

Our treatment of negotiated resilience references the recent provocation by Meerow and Newell (2016) that there is a clear need for careful consideration of not just resilience for whom and for what, but also where, when, and why. As they suggest, there is a need for a stronger processual orientation to deal with these five Ws, 'to be negotiated collectively and to engender critical reflection on the politics of urban resilience as plans, initiatives and projects are conceived, discussed and implemented' (p. 1). We are similarly focused on the politics and practice of what these negotiations look like, or what they should be moving forward. Beyond using the verb 'to negotiate', however, these authors do not delve into what 'negotiated resilience' as a concept potentially affords — our key contribution here. By introducing the idea of negotiated resilience, and elaborating the concept through several specific examples, our contribution offers a way to maintain focus on resilience as an important concept while also highlighting a procedural sensibility that foregrounds, rather

than sidesteps, key concerns and contestations. While common-sense definitions of negotiation might highlight the idea of finding common ground, our use of the term emphasizes its more open-ended meanings — a continual process of negotiation, with no clear end point, and without a sense that 'consensus' or shared meaning is a necessary goal or outcome.

As an initial point, by highlighting negotiation processes, we recognize that there are necessarily multiple interests, stakeholders, and notions of what is important for 'resilience.' As such, there are necessarily multiple notions and understandings of what might be 'resilient' depending on priority, scale, context, sector, or interest. If we take the urban scale as our focus, different priorities might come into focus in terms of what might serve resilience goals (Beilin & Wilkinson, 2015; Coaffee & Lee, 2016). Equally, if we are highlighting the interests of particular stakeholders, we might have a particular vision or set of priorities and policies that align with their 'resilience' needs (e.g., those in the energy sector might highlight different pathways as resilient relative to those with a primary focus on rural livelihoods or water access and quality in informal settlements). Negotiated resilience, therefore, begins with the assumption of 'multiplicity' and draws attention to processes through which this multiplicity might be managed or 'negotiated.' By focusing on these processes, we can attend to how and whether trade-offs are to be recognized, accounted for in decision-making, or perhaps even compensated when a decision prioritizes one scale (or interest) over another. Such an analysis is also likely to map divergent needs and emergent understandings of resilience, while also foregrounding power dynamics through considering whether, how, and why different interests, needs, scales, or definitions are prioritized (or not).

Our second point emerges directly from the first. Recognition of multiplicity, rather than a single, agreed upon, or necessary understanding or pathway to 'resilience' leads to an articulation of resilience not as a singular definable goal or as an outcome, but rather as a process. To be clear, negotiation does not necessarily suggest that it is always an active process between different groups that share a similar status or capacity. Nor does the term signal a legal process as we might associate with ideas of negotiation, for instance when states engage in 'treaty negotiations' or when entities 'negotiate a legal settlement.' Instead, processes of negotiation are often informal, unrecognized, time-intensive, and may even involve negotiation through avoidance, rather than through direct deliberation and engagement. In this sense, our understanding of negotiation is broad and inclusive of the range of actions and considerations that might affect what decisions are made, by whom, where, when and why (cf. Meerow and Newell, 2016). Consider when several communities have different interests related to the fate of a watershed – one relies on it for drinking water while the other relies on it for fishing. The nearby city might consider the watershed as an important site for recreation but it also depends on industrial uses that might pollute the water. What is resilient in such a context? Presumably resilience might involve maintaining the ecological health of the watershed and catchment to serve a suite of uses, but also attending somehow to the industrial uses and withdrawals in a way that does not sacrifice economic wellbeing, jobs, or other requirements. Immediately, a process of negotiation is required — who will decide which use is paramount for the system? How will this decision

or prioritization be made? What is the minimal level of quality that must be maintained to ensure particular uses are ongoing or possible? Will vulnerable communities be given special consideration? Again, it is not necessary that this process be explicit, transparent, accountable, or eventually lead to an agreed upon outcome; however, one of the elements that enlivens the concept of negotiated resilience is precisely the possibility of focusing greater attention to such processes and interactions (over what resilience it is and what it should be) in order to highlight some of these core concerns. We consider that increased attention to process may open up spaces for innovation, such as how to design more effective and accountable decision making processes in line with diverse resilience goals and frameworks (e.g., as with efforts to promote structured decision making, backcasting, or other efforts that aim to make decision-making more explicit and themselves the target for research, innovation, and transformation) (e.g., Ohlson & Serveiss, 2007).

The third interlinked point is that the concept of negotiated resilience is not agnostic about how and whether different communities and interests are able to advocate for their understanding and priorities in resilience decision-making frameworks. Instead, the concept invites explicit focus on inclusivity and participation. Who is able to express concerns and priorities related to resilience programs, what are the elements of process that might allow multiple interests and voices to be heard, and what does broad and inclusive participation mean for a commitment to resilience as a politics and process of negotiation? As part of this orientation and commitment, there might also be attention to how issues of recognition, redress, or compensation are dealt with when the needs of certain communities are not addressed (Schlosberg, 2007). The focus on negotiated resilience thus serves to underscore the importance and necessity of involving affected communities in discussions of what resilience is and what it could or should be. Although these processes may be time and resource intensive, contextually situated participation and engagement is key (Mansuri & Rao, 2012). As Imamura (2007) notes: "As research and negotiation is conducted behind closed doors, the general public's confidence in scientific, technical and administrative expertise is destined to be low. Without more inclusive processes an lasting mechanisms of social learning and public involvement, even scientific findings, however accurate, fail to gain social legitimacy" (p. 6). Such concerns are addressed in part with a recent example from the literature concerning 'narrating resilience', highlighting community involvement in storytelling around resilience as a way to engage communities, is a useful point of entry into such processes of negotiation (Goldstein, Wessells, Lejano, & Butler, 2015). With efforts of this type, there is enhanced potential to deal more adequately with local realities, cultures, values, and norms in defining and charting pathways for 'resilience.' Such participatory processes also are critical to move resilience away from an overly material focus to consider the diversity of values, interests, and norms that might be important in deciding which policies or infrastructures to promote (*ibid*).

Again, processes of participation need to be cognizant of the nature of that participation, moving beyond tokenistic participation, to more in depth evaluations of the character of participation, or the ways that participation and engagement tracks against specific policies or outcomes (Cooke & Kothari, 2001; Hickey & Mohan, 2004). Such explicit attention to

process can serve to highlight how and why certain interests and needs are prioritized, while others are not. Stressing negotiation also underscores the inherence messiness of these processes, as well as the skillset that is required to successfully navigate such complex processes (e.g. similar to the skills inherent to being a negotiator, mediator, or facilitator).

A fourth aspect is that any discussion or planning for 'resilience' will necessarily be political and contested. In brief, 'negotiated resilience' can serve to highlight political dynamics from the outset rather than only considering them as an afterthought. An approach to negotiated resilience that is explicit about necessary contestation is one that is alive to, and cognizant of, considerable uncertainties and necessary trade-offs moving into the future. It is not possible to resolve resilience goals at all scales, at all times, for all communities, or for all sectors (e.g., water, energy, food, and carbon). As such, it is imperative to think through the politics behind how decisions will be made, under what frameworks, and how to revisit, assess, and deal with the consequences of those decisions. For example, if a decision is made in a way that primarily supports economic resilience, how can we deal more adequately with who is not well served by those goals, and engage with a politics of negotiation on what would be just, equitable, or adequate in terms of compensation or other mechanisms? In this way, the term 'negotiated resilience' calls attention to issues of power and politics, as well as redress and compensation that will inevitably arise with the uneven distribution of the costs and benefits of any resilience intervention. A key question that emerges from this framework is: how do we make decisions together, through an iterative and inclusive process of negotiation, and move forward in ways that are ethical, just, transparent and accountable?

The concept of 'negotiated resilience' facilitates a greater recognition and foregrounding of all of these key considerations, allowing us to rethink and transform the very processes and practices that make up the diverse politics and pathways of 'negotiation.' As we also address in the conclusion, this focus for resilience is akin to parallel interventions that have been made in other fields, for instance, the focus by Robinson (2004) on sustainability as a process rather than an outcome; the work by Dryzek (2000) on the importance of deliberative democracy for environmental politics and sustainability; the work by Griggs, Norval, & Wagenaar (2014) on the need for more radically democratic forms of politics that highlight conflict, deliberation, and learning; or the work cited above by Goldstein et al. (2015) which documents the value of narrative approaches for resilience. Together, these strands highlight similar processual reorientations.

Case Examples of Negotiated Resilience: ACCCRN in India

In order to illustrate what negotiated resilience looks like in practice, we unpack two case examples where negotiation is foundational to what occurred, as well as for our analytical frame to analyze through these dynamics. The examples draw on dialogues that occurred in in the Indian cities of Surat and Indore. Here, there was the targeted creation of spaces to enable direct negotiation over the meanings and pathways for resilience interventions. The efforts explicitly aimed to create inclusive participation through the form of shared learning dialogues (SLD), which is a structured methodology for facilitating local climate change

resilience first developed by Institute for Social and Environmental Transition (ISET). The process focuses on multi-directional learning and information sharing, open and cross-scalar participatory pathways, and intensive and dialogues to balance trade-offs and uncertainties between urban priorities, climate change needs, and short-term and long-term considerations (ISET, 2010). The examples point towards elements of 'negotiated resilience' and show that significant attention in this direction is already underway. We also observe that this process, however well intentioned, can often be uncertain, marked by frustration and difficulty, and is frequently contested.

The Asian Cities Climate Change Resilience Network (ACCCRN), financed by the Rockefeller foundation, sought to work with a number of cities across South and Southeast Asia to develop city-level resilience plans (between 2009 and 2015). ACCCRN primarily focused on cities with low capacity to deal with slow onset and extreme risks associated with climate change. Through partnering with ACCCRN, cities would be able to assess resilience-building priorities in relation to concurrent urban development needs (Brown, Dayal, & Rumbaitis Del Rio, 2012; Chu, 2016). However, this process was complex and uncertain – especially in terms of having to balance long-term scenarios with immediate urban priorities. Many cities spent the first several years of the program navigating broad urban sectoral interests, community livelihood needs, and economic development trajectories in the context of environmental change. One hallmark of this process was a tool called shared learning dialogue (SLD), which was introduced in partnership with ISET and sought to bridge climate and development uncertainties by building stakeholder knowledge, engagement, and capacity from the ground up (Friend et al., 2016; Moench, Tyler, & Lage, 2011). Conceptually, through empowering communities that are projected to be most at risk from climate impacts, the SLD process strived for both inclusive policy processes and implementation outcomes (Chu et al., 2016). However, the design and implementation of these negotiated and participatory processes were often constrained by local political norms, institutional contexts, and local actor interests.

Surat, India

One notable example of the SLD process can be found in Surat, a city in the western Indian state of Gujarat that has historically been vulnerable to river inundation and flooding, particularly during the monsoon season. Surat is also home to a large concentration of textile, diamond processing, and petrochemical industries, which have contributed to Surat's relative wealth and high quality of life. At the same time, the municipal government in Surat has a reputation for inclusiveness, bureaucratic accountability, and political stability, somewhat uncommon for the Indian context. However, the city also faced strains on infrastructure due to the high growth of migrant laborers and sectoral conflicts. When the Rockefeller Foundation arrived in Surat in 2009, the city was already in the advanced stages of developing strategic economic development incentives, which recognized the continued importance of improving the city's economic competitiveness – as either part of a standalone special economic zone or as a node in the regional trade network – while also addressing persistent disaster risks such as sea level rise, extreme precipitation, urban heat risk, and

rising public health risks attributed to ongoing and anticipated environmental changes. As a result, Rockefeller's support was timely and politically relevant, with the local leadership particularly keen on developing innovative strategies for combining economic and climate resilience priorities, as well as to use this opportunity to bridge emerging class and ethnic divisions within the city. As such, there was an appetite and mechanisms to 'negotiate' a plan for the city that would consider varied needs, with the aim of balancing short term gains with long term risks and future sustainability goals.

Due to Surat's importance as a trade and economic center, local firms and business leaders played an important role in leading the stakeholder engagement and climate vulnerability assessment process. ACCCRN funds helped set up a city advisory committee that conducted a visioning exercise for Surat until the year 2030. The vision included plans for urban socioeconomic development and delineated the major climate challenges through different mapping exercises. Members of advisory committee came from key departments of the municipal government (such as the Municipal Commissioner and leaders of the planning, infrastructure, and irrigation departments), representatives from the Gujarat State Disaster Management Authority, local academics and experts, representatives from local NGOs such as the Urban Social Health Advocacy Alliance, and representatives from the South Gujarat Chamber of Commerce and Industry (SGCCI). Although the SLD process implemented in Surat was not representative of all socioeconomic interests across the city, the 14 members of the city advisory committee brought together critical political and scientific expertise to present different sectoral climate risks and vulnerabilities.

The first task was to define the overall risk profile of the city through iterative conversation and negotiation, which the 14 city advisory committee members undertook over approximately two years. The process began with a knowledge and awareness workshop, led by local consultants and academics, which communicated the basic concepts of climate change and the projected impacts on the city. These sessions made use of climate scenarios and models to highlight the impacts of heat, precipitation, sea level rise, and riverine flooding in the region. Maps of city neighborhoods, road and rail networks, and critical infrastructure sites were then superimposed onto these climate models to show areas of concentrated risks. These exercises contributed to building a common understanding of how climate risks would impact the city, how neighborhoods are differentially exposed to these impacts, as well as how social, economic, and ecological vulnerability affected these communities' ability to adapt to the impacts. Each committee member then presented the different social and institutional needs in response to projected climate risks, which included the identification of priority action areas, critical neighborhoods that warranted more protection, as well as a discussion of how to build a policy coalition for climate resilience that expanded beyond the jurisdiction of the city government. This included a strategy session about how to build awareness amongst the regional planning agency, the state disaster management authority, as well as the – at that time – newly created state climate change department.

After the initial stage of the SLD process, the city advisory committee pursued intensive learning workshops to assess the different policy and planning needs of different sectors. For

example, the committee commissioned GIS-based hazard risk assessments that further demarcated areas of high climate risk and climate vulnerability analyses that consisted mostly of surveys of socioeconomic and demographic data conducted in various neighborhoods across the city. Sector studies, similarly, were expert-led and focused on issues of environment, flood risk, health, energy, buildings/infrastructure, transportation, and water. Finally, the committee embarked on a comprehensive visualization and prioritization process to identify immediate action areas. These conversations focused on identifying co-beneficial projects that enhanced the economic resilience of the city's development profile, such as through upgrading existing flood management infrastructures for firms and factories by establishing more sensitive gauges, improving real time sensing, and building new pumps that were able to deal with backflow problems. There were also minor conversations about providing basic services to new immigrant communities in order to improve the "social cohesiveness" of the city. This negotiated approach was mostly confined to a select group of urban leaders because awareness of climate change was low, the economic incentives for resilience were high, and there was political and financial momentum that required immediate action. Though lacking in broad inclusiveness, this approach was generally not seen as a problem because the municipality has a reputation of accountability and good governance.

After the conclusion of the SLD process, the 14 members of the city advisory committee integrated all of the information through a series of risk-to-resilience workshops, where both expert and community representatives engaged in scenario planning and identified short- and medium-term resilience building activities. Held in April 2011, these workshops summarized the discussions within the city advisory group over the past two years and presented the findings to the wider community in the form of a published *Surat City Resilience Strategy*. The city resilience strategy attempted to integrate emerging climate and disaster priorities into current and planned municipal development activities, to build synergies with state and national level institutions, and stressed the importance of ensuring the resilience of the city's infrastructure, service delivery system, and poverty alleviation programs. In it, the city advisory committee also recommended three pilot projects. First, in 2010, the city initiated a sustainable urban design competition that called for urban design entries proposing planning around flood risk in and around low-income neighborhoods. Second, the city created a short message service enabled Urban Services Monitoring System. This allowed city officials to both access real-time data and evaluate the performance of the city's water delivery, solid waste collection, and other public service systems. Lastly, Surat created a vulnerable people's database, which was a web-based platform that combined socioeconomic vulnerability data with flood forecasts and risk maps.

What is clear from Surat's experience is that efforts to engender resilience were negotiated through and through—there were complex negotiations between stakeholders, expert groups, sectoral tradeoffs, and different visions and understandings of the city's future. Although exhibiting the characteristics of collaborative planning and inclusive development (see for example Gupta, Pouw, & Ros-Tonen, 2015; Hickey, Sen, & Bukenya, 2015; Innes & Booher, 2010), Surat's experience with the SLD process both helped to establish a shared

understanding of resilience needs among citizens *and* paved the way for more locally appropriate policy processes. For example, given the focus on infrastructure and economic vulnerability in the *Surat City Resilience Strategy*, the city government has since been able to proactively procure financial resources (including via intergovernmental grants and different local revenue sources) to support redundant water distribution pipelines and community health centers in a more targeted and socio-economically aware manner (Chu, 2016). In other words, a negotiated process not only improved democratic decision-making and representativeness, by directly confronting the potential political tradeoffs of resilience, the city also managed to redirect some resources from strategic economic development projects to more redistributive strategies.

By highlighting the intricacies of 'negotiated resilience', we can trace and recognize the complex processes of negotiation that are, and should be, part of any effort to theorize or to promote resilience. Things that appeared to go well in Surat's negotiated process were the iterative and consultative planning methodology that involved targeted stakeholder engagement workshops, the commissioned sector studies and assessments, the design of collaborative city project interventions, and follow-up learning, synthesis, and documentation initiatives. As noted, a key facet of the ongoing negotiation process pertained to questions of how to relate climate and disaster resilience to the economic development priorities of the city. Our attention to the processes and practices of negotiation in this context also help us to identify weaknesses of the design and implementation of the negotiation. In this case, the process was constrained in that it was expert-led and generally did not include comprehensive participation from vulnerable and migrant communities.

Indore, India

Unlike the approach taken by Surat, Indore's SLD process was much more devolved and citizen-driven. Again with Rockefeller Foundation support, this effort focused on facilitating community-led projects to increase local knowledge of climate impacts, to find more effective water management approaches, and to build new water supply infrastructures in slum communities (Chu, 2017). Indore, in the central Indian state of Madhya Pradesh, is projected to experience an overall reduction of water supply, so maintaining and upgrading the city's water infrastructure network were clear priorities for the city. In comparison with Surat, Indore's finances are more precarious due to the lack of a solid tax base, chronic mismanagement, and the stresses associated with rapid urbanization. At the outset of this project in 2010, there was a generally low level of governance capacity. As such, a key priority was to engage a wider set of actors in the city advisory committee, whilst acknowledging that direct support from the municipality would likely be limited. Through this example – and as we highlighted earlier – the processes and outcomes of 'resilience' do not exist apart from its specific articulation and manifestation in context. Here, part of what was negotiated is a resilience trajectory in the hope of fostering capacity and drawing on a wider set of actors in recognition of governance weaknesses.

Indore's SLD process actively engaged various departmental actors – including those involved with urban development, planning, and poverty alleviation– as well as the regional water infrastructure management agency, the regional planning authority, and local NGOs. Due to the lower levels of commitment from the municipal government, efforts also focused on developing connections to community/neighborhood level actors and NGOs who were historically responsible for managing local water sources such as water tanks and wells. An initial goal was to evaluate the urban impacts of changing monsoon rains and fluctuating water availability levels in the floodplain of the Narmada River, the main source of Indore's municipal water supply. At this point, the water supply network was already unreliable. Climate change scenarios projected further variability and declining supply overall. The city advisory committee noted that further water stresses would create double-stresses for low-income communities, who, on the one hand, tended to live in areas that more were more frequently cut off from the municipal water supply during times of shortage and drought and, on the other hand, were also primary custodians of the local lakes and water tanks that served as secondary, emergency water sources. Because of the disproportionate impact on lower-income communities, local institutions – including women's groups, micro-finance enterprises, religious collectives, and NGOs working on poverty alleviation and wellbeing – were amongst the most vocal participants in Indore's resilience-building process.

Within the methodology of the SLD, Indore also conducted vulnerability and risk assessments, a series of neighborhood workshops, visioning exercises, and community mapping exercises around particularly vulnerable sectors such as water, public health, and disasters. However, in the case of Indore, since the leadership in the city advisory committee mostly originated from different local women's collectives, micro-finance enterprises, and community-based service provision entities, the discussions primarily revolved around water access and public health priorities for disadvantaged communities across the city. The SLD process focused on understanding changing flow patterns of the city's own Khan River, which had already been reduced to a trickle and was now a waste dumping site, in addition to changing stresses that were expected and occurring from the nearby Narmada River. Scenarios were developed that highlighted changing precipitation trends, as well as changing temperature regimes (particularly anticipated heat increases during the summer months), to create vulnerability and exposure assessments with attention to the impacts for specific communities. These community-generated exposure assessments, were incorporated into GIS maps through a series of risk-to-resilience workshops. These workshops relied on scenario planning exercises to identify indicators for potential short- and medium-term adaptation interventions, such as grey water recycling facilities, communal water storage tanks, heat reflective roof tiles, and neighborhood monitoring of gastro-intestinal disease outbreaks. In general, in an effort to boost community awareness and capacities, these negotiations focused on documenting and reporting neighborhood-level incidences of public health crises and places in need of infrastructure repairs. Participation from local businesses was largely absent.

In terms of specific insights from Indore, there was considerable effort to engage vulnerable communities, while participation from the municipal government and local businesses

remained low. While municipal leaders were part of the city advisory group that eventually published the *Indore City Resilience Strategy* in 2014, there was a clear lack of awareness and willingness to address environmental risks. This is particularly so given all of the other developmental challenges in the city. Here, we see how the definition of 'resilience' in this context is necessarily constrained by very immediate development, poverty, and infrastructure concerns. This leads to a negotiation whereby immediate needs are granted more time, resources, or prioritization than longer-term out of view risks and possibilities. In one specific example, the community of Rahul Gandhinagar decided to use ACCCRN funds to build a reverse osmosis plant to treat grey water for community consumption purposes. The city only supported the effort to the extent of forgiving property tax and subsidizing electricity rates. Though these were important incentives to keep the facility operational, it was the community that partnered with Rockefeller to build the facility in the absence of considerable city support and involvement. The community then relied on a local women's savings group and religious collective to develop a business plan to keep the facility afloat. Focusing on processes of negotiation, it becomes clear that the primary actors were the community members who wanted local water infrastructure as well as the Rockefeller Foundation whose primary interest was to foster a greater focus on resilience, both in terms of infrastructure and in fostering an appreciation for these challenges across the municipal government writ large. For both the community and the Rockefeller Foundation, a key aspect of 'negotiation' was therefore the specific goal of fostering greater awareness on the importance of resilience thinking. Rockefeller, in particular, believed that commitment across all urban actors to be essential, and without it, that discrete projects and incremental gains would not be sustainable across time and space.

Both of the case examples show what a negotiated process of resilience-building can look like when applied in places – it is tied to context specificities, on the ground capacities, and local politics. Though showing many of the hallmarks of collaborative and participatory planning (Innes & Booher, 2010), negotiated processes in both Surat and Indore involved dialogue, shared learning, and bringing different interests to the table to determine locally-situated socio-ecological risks *and* emergent community and political priorities. Furthermore, in each example, a structured process facilitated negotiated framings of resilience in the context of particular local socioeconomic interests, differentiated access to public services, and historic forms of marginalization from democratic decision-making. As a result, in bridging current place-based development needs with wide-ranging and uncertain climate change scenarios, these resilience efforts necessarily involved knowledge sharing, communication, and deliberation. Negotiation helps us to highlight these interactions, make sense of them, and potentially intervene in a processual sense in more meaningful and explicit ways. We can certainly see benefits of the practices of engagement and negotiation—for instance, in the examples participants were able to learn more about climate and disaster impacts, and to integrate this knowledge into their understanding of their city. Unlike traditional collaborative planning and inclusive development approaches, Surat and Indore were also able to improve resilience outcomes by considering avenues and pathways to deal with challenges given the resources that were available, through attention to communities most in need or to decide which avenues would be the most politically salient and expedient.

In each of these examples, negotiation was structured as part of the process and practice of building resilience. That said, negotiation also suggests an awareness that the process is not smooth, nor does it end at the end of a stakeholder engagement effort—but rather resilience is necessarily an ongoing process of negotiation.

Conclusion

We can learn a great deal by analyzing resilience as an ongoing negotiated process. Both the Surat and Indore examples reinforce the idea that processes of negotiation are inherent to what resilience is, or what it should be. While our conceptualization of negotiated resilience is novel, and adds to the literature on resilience, it is clear that the practices and processes of negotiated resilience are not new, but are part and parcel of the practices, politics, and discourses of resilience that have emerged over the past several decades.

We recognize that our focus on negotiation in the field of resilience is allied with parallel moves in a number of different academic and policy fields that argue for greater emphasis on democratic processes that include different perspectives in planning and practice. "Negotiated resilience" aims to build on key theories and approaches of deliberation, such as those associated with radical and deliberative democracy (Dryzek, 2000; Griggs et al., 2014; Habermas, 1991; Young, 2000). It also recognizes the need to reflect on lessons learned in other fields. For example, in the fields of natural resource and climate change governance, there has been an emphasis on widening the breadth of actors involved in governance (Ansell & Gash, 2007; Folke, Hahn, Olsson, & Norberg, 2005; Pahl-Wostl et al., 2007; Wise et al., 2014). New methods have been used in work on environmental policy to try and unpack what the process of engagement means, how knowledge can be co-produced and conflicts resolved. For example, there has been a growing use of scenarios to uncover different interests (Ebi, Kram, van Vuuren, O'Neill, & Kriegler, 2014; Moss et al., 2010), the use of games, role-play simulations, and other experimental techniques has been used to frame deliberative arenas for sharing concerns and managing conflicts (Rumore, Schenk, & Susskind, 2016). As well, traditional mediation and facilitation techniques have also been used to improve policy coordination and collaboration around environmental issues (Susskind, 2010). Dore (2007) uses multi-stakeholder platforms in the water resource management context as a way of prioritizing informed debate to "openly negotiate workable strategies and agreements" (p. 197). The rich assemblage of critical approaches that have sought to work through possibilities and substance for diverse modes of community engagement, participation, and transparency, should certainly be drawn on when supporting and further developing strategies and tools for negotiation for resilience.

The concept of negotiated resilience allows our understandings to catch up to the necessary messy processes of negotiation on the ground. In so doing, we are able to draw focused attention to a range of features, politics, and potentialities that are inherent to resilience in practice, even as they have often been downplayed in associated scholarship and practice. Our hope is that the conceptual innovation of negotiated resilience will focus renewed attention on the diverse processes and pathways through which resilience is 'negotiated' in

varied context and across different actors, needs, and interests. Doing so will enliven our appreciation for these complexities, and also might spur innovation and transformation that takes seriously the difficulties and ongoing necessities of enabling, supporting, and confronting 'negotiated resilience' in all of its contentious but necessary forms.

Among the most central of the implications of 'negotiated resilience' is the need to work towards decision making frameworks and policy processes that foreground and invite negotiation, rather than viewing these engagements or institutions as obstacles to the building and achievement of resilience. We must recognize and theorize contestation and trade-offs as inevitable—there will be necessary gains and losses as part of our negotiation of what resilience is or could/should be. We must approach such difficult choices in the spirit of negotiation —making explicit 'resilience for whom, to what, and why?' based on what rationales or priorities, and enabling a true spirit of discussion around what is reasonable, equitable, or fair when it is acknowledged that some perspectives or goals will be privileged over others. It is only by doing so that we can build better decision-making frameworks and processes. This also offers a key step forward to more fully address key issues of equity and justice (Ziervogel et al., 2017), including notions of procedural, distributional, or compensatory justice. All told, the reorientation offered by 'negotiated resilience' can help to trace and facilitate the necessary steps of contestation, learning, and reconciliation. These are not steps that disrupt resilience, but rather are foundational to what resilience is or should be.

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